W. J. CAMERON.

ADAPTER.

APPLICATION FILED MAY 4, 1916.

1,335,935. **Patented Apr. 6, 1920.**

Fig. 1.

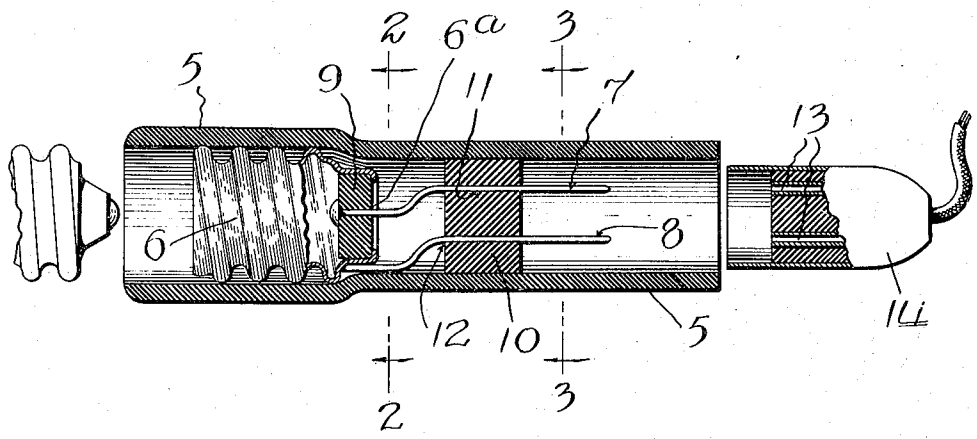


Fig. 2.

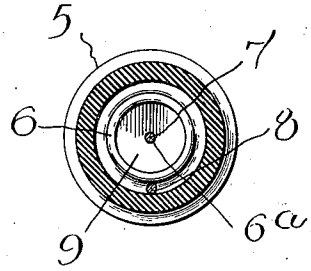
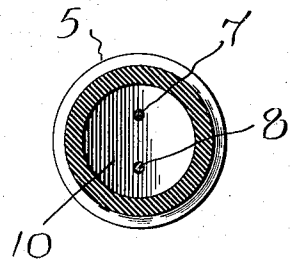


Fig. 3.



Witness:
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UNITED STATES PATENT OFFICE.

WILLIAM J. CAMERON, OF CHICAGO, ILLINOIS.

ADAPTER.

1,335,935. Specification of Letters Patent. Patented Apr. 6, 1920.

Application filed May 4, 1916. Serial No. 95,398.

To all whom it may concern:

Be it known that I, WILLIAM J. CAMERON, a subject of the King of Great Britain, (having declared his intention of becoming a citizen of the United States,) and residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Adapters, of which the following is a specification.

My invention relates to an electrical appliance and more particularly to an adapter for use by persons engaged in work relating to the dental or surgical professions.

One of the objects of my invention is the provision of a device of this character that is safe in the hands of persons comparatively unskilled in the use of electricity, so that the danger of transmitting an electrical shock to a patient or to the operator is materially lessened, if not eliminated. Another object of my invention is the provision of an adapter or coupling, whereby a surgeon or dentist or other specialist, may employ a light or lamp to assist in making examinations or performing operations and have the same connected into the usual service tap and employ a lamp of relatively small dimensions, but of high candle power and wattage. Further objects of my invention are the provision of a device of this character that is easy to handle, simple in construction and economical or inexpensive to manufacture.

I prefer to accomplish the divers objects of my invention by the means and in the manner hereinafter fully described and as more particularly pointed out in the claims, reference being had to the accompanying drawings forming a part of the specification, in which:—

Figure 1 is a longitudinal sectional view of my invention showing the circuit wires about to be inserted in one end thereof and the plug of a lamp about to be inserted in the opposite end.

Fig. 2 is a transverse vertical section taken on line 2, 2, Fig. 1, and

Fig. 3 is a section similar to Fig. 2, taken on line 3, 3, Fig. 1.

Referring to the drawings, it will be seen that similar reference characters have been employed to indicate the divers parts throughout the figures. My device preferably comprises an outer cylindrical shaped shell or sleeve, 5, constructed of rubber, gutta-percha, fiber, or other insulating material, that is bored out substantially in the manner shown. I prefer to make this shell of gutta-percha for the reason that it better performs the functions that will hereinafter more fully appear. Mounted inside of this shell, and preferably a distance back of one end sufficiently far to position the same out of reach of the fingers of the operator, is a screw-threaded socket, 6, of the smaller type, from which extend two contact wires, 7 and 8, the former wire leaving the socket from the center, 6^a, of its rear portion, which center is formed of usual material to effect an insulation of the terminal of the wire, 7, from the screw-threaded socket wall, 6, and the latter wire, 8, being bent substantially L-shape, as shown in Fig. 1 of the drawings, so as to partially surround the reduced inner end, 9, of the socket, and then extends laterally therefrom. These contacts, 7 and 8, after leaving the socket, are bent laterally so as to be disposed parallel to each other in the central portion of the sleeve, 5, and at a point near their ends, these wires extend through and are spaced from each other by means of an insulating washer, 10, fitted into the opposite end of the sleeve, 5. The washer, 10, is provided with two transverse openings, 11 and 12, through which these contacts pass and thus keep the same spaced away from each other and avoid any accidental short-circuiting thereof.

In assembling the device heretofore described, I prefer to slightly heat the hard rubber or gutta-percha tube, 5, and force the socket, 6, therein until it has entered the bore thereof a suitable distance to avoid contact being made by the fingers. The spacing washer, 10, is disposed adjacent the opposite end of the tube, and when the tube cools the same will shrink onto the washer and socket, thus forming a tight fit and avoiding the accidental withdrawal of the parts. The terminals, 7 and 8, are so positioned that they are out of reach of the fingers of the operator and are in a position to readily receive the internal sleeves, 13, carried within the terminal plug, 14, of the electric circuit.

What I claim as new is:—

1. A connecting device for electric circuits comprising a plug member having hollow contact terminals each connected to its respective circuit wire, a shield around said plug and extended beyond the end thereof

so that the adjacent ends of said terminals are disposed inside said shield member, a separate unitary member adapted to coöperate with said plug member consisting of an insulating tube having corresponding electrical contact members disposed entirely therein and shielded thereby; said contact members adapted to be engaged by and make connection with the terminals in said plug member into the socket member, and a threaded metallic cup inclosed in said tube and connected to said contact members, whereby said separate unitary member is adapted to receive the plug of an electric lamp at one end and to form electrical contact connection therefor at the opposite end.

2. A connecting device for electric circuits comprising a plug member having hollow contact terminals each connected to its respective circuit wire, a shield around said plug and extended beyond the end thereof so that the adjacent ends of said terminals are disposed inside said shield, a separate unitary member adapted to coöperate with said plug member consisting of an insulating tube having corresponding electrical contact members disposed entirely therein and shielded thereby; said contact members adapted to be engaged by and make connection with the terminals in said plug member by the insertion of said plug member into the socket member, an insulating block mounted within said tube intermediate its ends through which said contact members are adapted to extend and which spaces and positions the latter in register with the bores of the terminals of said plug, and a threaded metallic cup inclosed in said tube and connected to said contact members, whereby said separate unitary member is adapted to receive the plug of an electric lamp at one end and to form electrical contact connection therefor at the opposite end.

Signed at Chicago, county of Cook, and State of Illinois, this 1st day of May, 1916.

WILLIAM J. CAMERON.

Witnesses:
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Wm. Harold Eichelman.